Five questions about workforce needs in Idaho.

The ReThink Series
Knowledge Base of Education Facts
Idaho’s State Board of Education has embraced a goal that **60 percent of Idaho’s 25- to 34-year-olds hold postsecondary degrees or credentials by 2020.** This ReThink brief summarizes business leaders’ perspectives on the goal and their forecasted need for skills and occupations.
Background:
Idaho’s education leaders have rallied behind a goal that calls for 60 percent of young adults in Idaho to hold postsecondary degrees or credentials by 2020. But what’s the stand of the state’s business leaders? Do they share an urgency to rapidly boost the skills of the state’s workforce?
This ReThink brief lays out employers’ perspectives on the need for additional degrees and credentials, as well as the requisite skills future graduates should hold. The perspectives were gleaned from an unprecedented survey of 466 employers from every corner of Idaho. Conducted by Idaho Business for Education (IBE), the survey drew responses from presidents, chief executive officers and other senior managers.

The upshot?

The surveyed leaders embrace the 60 percent goal. They foresee weak market demand for workers with a high school diploma or less, and anticipate considerably higher demand for bachelor’s and graduate degrees than Idaho’s education system is currently producing.
Four regions are included in Idaho Business for Education’s Workforce Needs Survey
FIVE QUESTIONS ABOUT WORKFORCE NEEDS IN IDAHO.
Q1: What education levels do Idaho employers say their workers need to have?

Q2: How do education levels needed by Idaho employers vary across regions?

Q3: How do actual education levels of younger Idahoans compare with employers’ needs?

Q4: How does the perceived need for workers with bachelor’s or advanced degrees in Idaho compare with current education levels in the U.S. workforce?

Q5: What degree areas, occupations and skills are in highest demand in Idaho?
Q1: What education levels do Idaho employers say their workers need to have?
A:

By 2018, Idaho employers will require a workforce with substantially higher levels of education than they currently employ.
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A: By 2018, Idaho employers will require a workforce with substantially higher levels of education than they currently employ.

The *IBE Workforce Needs Survey* results validate the state’s goal of 60 percent attainment for young adults. Today, about 52 percent of employees working in the organizations surveyed had a degree or certification, compared with 61 percent needed by 2018 — almost 10 percentage points higher. Employers report that 43 percent* of workers will need to have bachelor’s degrees or advanced degrees.

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* This fraction is more than twice that of an estimate (22%) presented in a recent well-known study by Georgetown (Carnevale, A. P., Smith, N., Strohl, J. (2013). Recovery: Job growth and education requirements through 2020. Washington, DC: Georgetown Public Policy Institute.) Part of the discrepancy may come from the types of employers who responded to the IBE survey and part may come from assumptions in the Georgetown study regarding the kinds of jobs that will exist in Idaho in 2020; nonetheless, surveyed employers will require a highly educated workforce going forward.
Current share of Idaho workers with credentials vs. perceived needs for future workers

- **Employees in 2013**:
  - Advanced Degree: 11%
  - Bachelor’s Degree: 24%
  - Associate Degree: 5%
  - Certification: 12%

- **Perceived Need in 2014**:
  - Advanced Degree: 14%
  - Bachelor’s Degree: 28%
  - Associate Degree: 12%
  - Certification: 4%

- **Perceived Need in 2018**:
  - Advanced Degree: 13%
  - Bachelor’s Degree: 30%
  - Associate Degree: 12%
  - Certification: 7%

**60% Goal**

Source: IBE Workforce Needs Survey (Questions 6, 7, and 8).
Q1: What education levels do Idaho employers say their workers need to have?

A: Perceived educational needs do not differ much for firms of different sizes.

Other than companies with 101-500 employees, firms of all sizes call for education levels at or above the 60 percent goal. Notably, the smallest firms see the greatest need for bachelor’s and advanced degrees. The 51-to-100-employee companies stand out for their disproportionate interest in certificates.
Perceived educational needs in Idaho by 2018, by firm size

Source: IBE Workforce Needs Survey (Questions 3 and 8)
Q2: How do education levels needed by Idaho employers vary across regions?
A: Across Idaho regions, employers need more employees with higher education levels and fewer employees with lower education levels.
How do education levels needed by Idaho employers vary across regions?

Across Idaho regions, employers need more employees with higher education levels and fewer employees with lower education levels.

The anticipated need for workers with postsecondary education is relatively higher in Southwestern and Eastern Idaho and lower in the Northern and South Central regions. Responses from employers in Southwestern Idaho resemble those in Idaho generally; about **60 percent of jobs will require a degree or certification**. Eastern Idaho employers anticipate needing a relatively high share of workers with associate degrees, whereas Northern and South Central employers stress the importance of certificates for their future workforce.
Perceived educational needs in Idaho by 2018, by region

Source: IBE Workforce Needs Survey (Question 8).
AN INVESTMENT IN THE BEST
KNOWLEDGE PAYS INTEREST.

—Benjamin Franklin
Q3: How do actual education levels of younger Idahoans compare with employers’ needs?
The current education levels of Idaho’s 25- to 34-year-olds fall short of employers’ anticipated needs.
Q3: How do actual education levels of younger Idahoans compare with employers’ needs?

A: To meet employers’ needs, about one-third of young Idahoans with only a high school diploma need to move into postsecondary education.

Employers report relatively low need for workers who have not moved beyond a high school diploma. South Central Idaho has the highest perceived need for this education level and the current supply of young adults is in balance with that region’s future need. But in general, too many young Idahoans have stopped short of postsecondary education.
Current education levels of young adults in Idaho vs. perceived need:

/// HIGH SCHOOL DIPLOMA ONLY

Sources: U.S. Census Bureau, 2008-2012 American Community Survey & IBE Workforce Needs Survey (Question 8).
Q3: How do actual education levels of younger Idahoans compare with employers’ needs?

A: Many young adults with “some college” need to take the next step and complete a degree.

The “some college” education level represents a step beyond high school and includes many types of programs, coursework and credentials. The share of 25- to 34-year-old Idahoans at this level is higher than the reported need statewide. In two regions, Northern and South Central Idaho, employers anticipate needing more workers at this level than the current population is supplying.

The key question about this group is whether the resulting credits, courses and credentials are aligned with employers’ needs. These individuals range from those with just a few community college credits to those who are just shy of a degree. Some might be receiving certificates for jobs that don’t exist in the region.
Current education levels of young adults in Idaho vs. perceived need:

/// SOME COLLEGE

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Sources: U.S. Census Bureau, 2008–2012 American Community Survey & IBE Workforce Needs Survey (Question 8).
Note: "Some college" includes certificates and vocational training.
Q3: How do actual education levels of younger Idahoans compare with employers’ needs?

A: As many of those with associate degrees continue their education, others will need to obtain two-year degrees to satisfy anticipated employer demand.

Eastern Idaho employers anticipate an increased need for employees holding an associate degree by 2018. In other regions around the state, employers report that 8-12 percent of workers will need an associate degree, and the share of young adults in Idaho with this education level is close to the perceived future need. However, these individuals are strong candidates for continuing their education and completing bachelor’s degrees. As they move on, the “some college” group can step up and complete the needed associate degrees.
Current education levels of young adults in Idaho vs. perceived need:

/// ASSOCIATE DEGREE ///

Sources: U.S. Census Bureau, 2008-2012 American Community Survey & IBE Workforce Needs Survey (Question 8).
Q3: How do actual education levels of younger Idahoans compare with employers’ needs?

A: Idaho employers have a clear need for more bachelor’s degree holders: many more.

At the state level and in each region, employers report strong forthcoming need for workers with bachelor’s degrees. Employers in Southwestern Idaho indicate that half of their workforce will need bachelor’s degrees; the share is closer to one-third in the Northern and South Central regions. The current population is not prepared for this: less than one-quarter of young adults in Idaho have completed a bachelor’s degree or higher, with the lowest regional level in South Central Idaho (15 percent).

In sum, the current education levels of Idaho’s 25- to 34-year-olds fall short of employers’ anticipated needs. Too many young adults have a high school degree or less, and too few have a bachelor’s degree or higher. If workers in each group move forward and complete the next step in their education or training, the gap will begin to close.
Current education levels of young adults in Idaho vs. perceived need:

/// BACHELOR’S DEGREE OR ABOVE

Sources: U.S. Census Bureau, 2008-2012 American Community Survey & IBE Workforce Needs Survey (Question 8).
Q3: How do actual education levels of younger Idahoans compare with employers’ needs?

A: Counties—even neighboring counties—can have vastly different education profiles.

While education gaps vary across the four regions, meaningful differences exist within regions as well. Here, employer-perceived educational needs for Southwestern Idaho are compared to the education levels of 25- to 34-year-old residents of Ada and Canyon counties. Ada County’s alignment to employer needs appears relatively manageable: lower the high school dropout rate a few percentage points and turn more “some college” students into bachelor’s-degree holders. Canyon County, where 45 percent of young residents hold a high school degree or less, is considerably less aligned with the region’s employer needs.
Current education levels of young adults in Ada and Canyon counties vs. perceived need in Southwestern Idaho

Source: U.S. Census Bureau, 2008-2012 American Community Survey & IBE Workforce Needs Survey (Question 8).
Q4: How does the perceived need for workers with bachelor’s or advanced degrees in Idaho compare with current education levels in the U.S. workforce?
A:
For many occupations, Idaho employers anticipate needing highly educated workers at a rate that exceeds the current national average.
For many occupations, Idaho employers anticipate needing highly educated workers at a rate that exceeds the current national average.

The following chart compares (1) bachelor’s-degree levels that Idaho employers are seeking for each major group of occupations and (2) the current bachelor’s-degree levels for those occupations nationally. The largest gaps exist for management, health professionals and sales and marketing occupations. These results indicate that, going forward, Idaho’s employers will be focusing on positions that require a bachelor’s degree or higher, at a rate that exceeds the current national average within many occupations.

One interpretation of this finding is that Idaho’s employers have faced challenges filling positions that require higher levels of educational attainment and have had less difficulty filling positions within occupations that require lower levels.
Percentage of open positions through 2018 that Idaho employers anticipate will require a bachelor’s degree or higher, versus the current national share of workers with a bachelor’s degree or higher, by major occupational group.

Sources: U.S. Census Bureau, 2008-2012 American Community Survey & IBE Workforce Needs Survey (Question 10).
Note: Occupations with fewer than 40 responses were removed.
Q5: What degree areas, occupations and skills are in highest demand in Idaho?
A: Idaho employers are demanding degree areas and occupations that require high levels of educational attainment. Soft skills are also important.
Q5: What degree areas, occupations, and skills are in highest demand in Idaho?

A: The top three emerging degree areas for Idaho employers are computer science/technology, business and economics and engineering.

Employers were asked to rank, in order of importance, the top five degree areas that they see emerging in their hiring needs by 2018. The following table lists the rank of degree areas by region. Differences to note across regions include health science (relatively less important to Northern and South Central employers), vocational education (relatively less important to Southwestern employers) and agricultural sciences (relatively more important to Eastern and South Central employers).
Degree areas, ranked in order of near-term importance by Idaho employers, by region

<table>
<thead>
<tr>
<th>Degree Area</th>
<th>Statewide</th>
<th>Eastern</th>
<th>Northern</th>
<th>South Central</th>
<th>Southwestern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science/Technology</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Business &amp; Economics</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Engineering</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
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<td>Health Science</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>10</td>
<td>3</td>
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<tr>
<td>Communications</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>6</td>
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<tr>
<td>General Science</td>
<td>6</td>
<td>13</td>
<td>7</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Mathematics</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Vocational Education</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>12</td>
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<tr>
<td>Social Science</td>
<td>9</td>
<td>11</td>
<td>8</td>
<td>14</td>
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<tr>
<td>Natural Resources</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>11</td>
<td>9</td>
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<tr>
<td>Education</td>
<td>11</td>
<td>12</td>
<td>11</td>
<td>9</td>
<td>10</td>
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<tr>
<td>Liberal Arts</td>
<td>12</td>
<td>8</td>
<td>14</td>
<td>12</td>
<td>11</td>
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<tr>
<td>Agricultural Sciences</td>
<td>13</td>
<td>7</td>
<td>12</td>
<td>8</td>
<td>13</td>
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<tr>
<td>Art/Architecture</td>
<td>14</td>
<td>14</td>
<td>13</td>
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</tr>
</tbody>
</table>

Source: IBE Workforce Needs Survey (Question 13).
Q5: What degree areas, occupations, and skills are in highest demand in Idaho?

A: Many emerging occupation areas for Idaho employers require high levels of educational attainment.

Employers also listed the types of occupations they anticipate needing in their organization by 2018. Positions in most of the occupation groups ranked highest by Idaho’s employers will require a bachelor’s degree or higher. Eastern and Southwestern Idaho rankings are largely aligned with the statewide list, whereas Northern and South Central employers ranked a few occupation groups somewhat differently than their peers.
Select high-educational attainment occupation groups ranked in order of near-term importance by Idaho employers, by region

<table>
<thead>
<tr>
<th></th>
<th>Statewide</th>
<th>Eastern</th>
<th>Northern</th>
<th>South Central</th>
<th>Southwestern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Business &amp; Financial</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Computer</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Training</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Sales/Marketing</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Legal</td>
<td>7</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Mathematical</td>
<td>11</td>
<td>11</td>
<td>13</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>Life, Physical &amp; Social Sciences</td>
<td>12</td>
<td>16</td>
<td>12</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>Healthcare Professionals/Medical</td>
<td><strong>16</strong></td>
<td>13</td>
<td><strong>18</strong></td>
<td>14</td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

Source: IBE Workforce Needs Survey (Question 9).

Note: Other statewide top occupation groups by rank are: office and administrative support (1); building and grounds maintenance (8); installation, maintenance, and repair (9); manufacturing (10); community and social services (13); construction (14); and transportation (15).
Q5: What degree areas, occupations, and skills are in highest demand in Idaho?

A: Soft skills are important to Idaho employers.

Idaho’s employers stress the importance of performing with integrity, contributing to a team, acquiring knowledge, being able to communicate effectively and managing time and priorities. There are some differences across regions: Eastern Idaho employers place relatively more importance on taking initiative and less on contributing to a team; South Central employers rank “engage in continuous (lifelong) learning” higher than their peers in other regions. For all four regions, speaking a foreign language was the least important skill on this list.
Skill/competency areas, ranked in order of importance by Idaho employers, by region

<table>
<thead>
<tr>
<th>Skill/Competency</th>
<th>Statewide</th>
<th>Eastern</th>
<th>Northern</th>
<th>South Central</th>
<th>Southwestern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform with Integrity</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Contribute to a Team</td>
<td>2</td>
<td>11</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Acquire Knowledge</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Solve Problems</td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Effectively Communicate Orally</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Manage Time &amp; Priorities</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Embrace Change</td>
<td>7</td>
<td>9</td>
<td>13</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Think Critically</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Take the Initiative</td>
<td>9</td>
<td>3</td>
<td>7</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Build &amp; Sustain Professional Working Relationships</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Analyze, Evaluate &amp; Interpret Information</td>
<td>11</td>
<td>7</td>
<td>17</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Manage &amp; Synthesize Different Sources of Information</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>17</td>
<td>12</td>
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<tr>
<td>Effectively Communicate Through Writing</td>
<td>13</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>15</td>
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<tr>
<td>Navigate Across Boundaries (Internal &amp; External Collaboration)</td>
<td>14</td>
<td>16</td>
<td>12</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Create Original Ideas &amp; Solutions (Be Innovative)</td>
<td>15</td>
<td>14</td>
<td>15</td>
<td>13</td>
<td>13</td>
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<tr>
<td>Engage in Continuous (Lifelong) Learning</td>
<td>16</td>
<td>17</td>
<td>11</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Plan &amp; Manage a Project</td>
<td>17</td>
<td>15</td>
<td>16</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Speak a Foreign Language</td>
<td><strong>18</strong></td>
<td><strong>18</strong></td>
<td><strong>18</strong></td>
<td><strong>18</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

*Source: IBE Workforce Needs Survey (Question 16).*
Q5: What degree areas, occupations, and skills are in highest demand in Idaho?

A: Employers are looking for good communicators and problem solvers.

Employers also answered an open-ended question about the kinds of skills they look for when recruiting new hires. The following word cloud captures their responses: the larger the word, the more times it was used. Communication, problem-solving and computer skills came out on top.

Many employers also mentioned the importance of people skills and critical thinking ability. One said, “We interview many with hard skills and training, but they cannot all relate effectively with others.” Another wrote that “many individuals come out of schooling with the ability to follow specific directions, but without the ability to evaluate a situation and make a decision on how to proceed.”
communication

writing
math
learn
science
willingness
accounting
knowledge
people
strong
social
customer service
computer
problem solving
written
new
technical
school
others
work ethic
management
effectively
critical thinking
business
follow directions
interpersonal
job
education
sales
verbal
reading
marketing
office
experience

Source: IBE Workforce Needs Survey (Question 15).
Conclusion:

Through these survey responses, Idaho business leaders have called for a rapid and sustained improvement in the skills of Idaho’s workforce. This comes after three decades during which labor skills haven’t kept pace with the forces of globalization and technological improvement. Low value-added jobs have either moved overseas or been eliminated by technology. Survey responses suggest business leaders expect the trend will continue. They see steadily declining prospects for high school graduates and virtually no opportunities in their businesses for high school dropouts.
Their perspectives further validate the State Board’s direction and add urgency to demonstrating measurable progress toward the 60 percent goal. To move the needle, Idaho must address the productivity of the entire pre-kindergarten to college continuum.
A logical first step includes **setting appropriate goals** in kindergarten readiness, 3rd grade reading, and 8th grade math that are tightly aligned with, and predictive of, high school completion and college readiness.

As the K-12 system boosts college readiness, **Idaho must address its low go-on rates**. Too many capable young Idahoans don’t attempt postsecondary education, which limits their earnings and threatens the state’s economic future.

Finally, adding some definition to the 60 percent goal is imperative. Business leaders aren’t calling for just any degree. They’re **demanding degrees that produce flexible problem solvers** with strong technical skills and the ability to communicate.
If Idaho meets the goal, or even makes substantial strides toward it, the state could expect accelerated, long-run economic growth as skilled entrepreneurs dream up new businesses and other firms relocate to Idaho to tap its talent.
FYI

The ReThink Series is a periodic report of education facts produced by the J.A. and Kathryn Albertson Foundation. This issue is in partnership with Idaho Business for Education and ECONorthwest, an economics, finance and planning consulting firm.